

Memorandum

To: Panel Members Date: January 23, 2002

From: Creighton Chan, Manager
Peter DeMauro, General Counsel Analyst: A. Emerson

Subject: One-Step Agreement for **Morgan Advanced Ceramics, Inc.**
(www.morganadvancedceramics.com)

CONTRACTOR:

- Training Project Profile: Retraining: companies with out-of-state competition
- Legislative Priorities: Moving to a High Performance Workplace
Developed jointly by management and workers
- Type of Industry: Manufacturing
- Repeat Contractor: No
- Contractor's Full Time Employees:
 - Company Wide: 500
 - In California: 260
- Fringe Benefits: No
- Union Representation: Yes
- Name and Local Number of Union representing workers to be Trained: International Association of Machinists & Aerospace Workers, Local 1414

CONTRACT:

- Program Costs: \$138,840
- Substantial Contribution: \$0
- Total ETP Funding: \$138,840
- In-Kind Contribution: \$235,000
- Reimbursement Method: Fixed-Fee
- County(ies) Served: Alameda
- Duration of Agreement: 24 months

SUBCONTRACTORS:

None.

THIRD PARTY SERVICES:

Deloitte & Touche, Los Angeles, California, a flat fee of \$27,000, for assisting the Contractor with developing the ETP Application.

NARRATIVE:

This project was brought to the Panel for consideration by the California Technology, Trade, and Commerce Agency, and is eligible under Title 22, California Code of Regulations, Section 4416(b), which states in part that a company engaged in manufacturing is deemed to meet the out-of-state competition requirement for purposes of Panel funding. In addition, training under this proposed Agreement is supported by the International Association of Machinists & Aerospace Workers, Lodge 1414, which represents over 130 production workers at the prospective Contractor's facility.

Located in Hayward, California, Morgan Advanced Ceramics, Inc., is a global producer and supplier of customized high-tech ceramic components for chemical, electrical, mechanical, and vacuum applications for customers primarily in the fields of medicine, semiconductor manufacturing, and aerospace. The company is a full manufacturer from raw material preparation through to the assembly, testing, and cleaning of finished components made of high-purity aluminum oxides with high-quality molybdenum and nickel coatings for a myriad of artifacts including wafer process chamber rings and domes, x-ray tubes, night-vision equipment, semiconductors, and lasers. The firm is a wholly owned subsidiary of Morgan Crucible Company, a United Kingdom company and world leader in providing engineered solutions using ceramics, carbon, and other related advanced materials.

The origin of the advanced ceramics division started in the late 1920s when Steatite & Porcelain Products Limited was established in Britain. Morgan Crucible acquired Steatite & Porcelain in 1964, while the rapid expansion of Morgan Advanced Ceramics operations in the United States began in 1986. Further acquisitions in the U.S., the UK, Europe, and the Far East placed the company's technical ceramics capability at the forefront of the industry worldwide. Today the company operates 15 manufacturing plants located throughout Europe, North America and Asia, and employs 500 employees within the United States, including 260 workers in its plant in Hayward, California. Main competitors include CoorsTek, Inc., with headquarters in Golden, Colorado, and Kyocera Industrial Ceramics Corporation in Vancouver, Canada, and in Washington State.

The prospective Contractor states that it and the advanced ceramics industry as a whole are currently facing a difficult economy with declining supply needs and steadily decreasing profit margins due to higher production costs and competitive pricing from out-of-state contenders. To compound this dilemma, Morgan Advanced Ceramics has had difficulty in consistently meeting delivery deadlines. This is coupled with the firm's ongoing necessity of continually upgrading its products and improving its work

NARRATIVE: (continued)

processes. The resultant impact necessitates requirements that the prospective Contractor convert to a high-performance workplace and institute a comprehensive retraining program. Before drawing up this project's training plan, schedule and tailored curricula, the company assigned a team of managers to study and identify new ways to thoroughly grasp, evaluate, and improve the current manufacturing process. This team identified critical goals that had to be met in order for the company to remain competitive, including improved productivity ratios, superior product quality, and more precise efficiency in manufacturing operations. In order to achieve these objectives, Morgan Advanced Ceramics came to recognize that its first and primary obligation was to invest in its workforce by implementing a comprehensive training plan that would propel the company towards becoming a high-performance workplace. In particular, employees need the skills to enable them to adapt to the escalating quality demands of customers – including on-time delivery of products, learning new computer technologies, and improving manufacturing techniques. Besides the imperative of implementing a continuous improvement process for the first time, Morgan Advanced Ceramics also invested in new equipment and technology during 2002, particularly in Syteline inventory software and recently purchased Computer Numeric Control (CNC) machinery to improve worker efficiency and product quality.

This proposal will allow the company to provide training to 203 front-line workers and five managers to boost employee involvement by teaching them to work in teams; to identify and solve problems previously not within their purview; to broaden communication skills; to understand new processes; and to cross-train on production equipment. The added expertise is supported by the participating union. To complement the firm's investment in new technologies, Morgan Advanced Ceramics is committed to also implementing cultural changes at the worksite that obligates retraining for most employees in the following fields:

Management Skills – This course in management and leadership skills will be given to the five managerial trainees and several individuals slated for promotion to assist frontline workers to work effectively in teams and to learn coaching techniques peculiar to that arrangement. Other new methods of leadership will include facilitating new changes at the workplace and helping frontline workers to assume and implement new goals stemming from cultural and technological changes.

Computer Skills

Computer Assisted Drafting (“CAD”) This course, which is new to the firm, is critical for engineers to abandon drafting tables in favor of using new computer systems, which will increase their efficiency and quality of work, particularly critical if Morgan Advanced Ceramics is to remain competitive.

Syteline –Another recent investment in computer software involves a sophisticated system that links the entire manufacturing process to the accounting system and provides first-time, real-time data to decision makers throughout the company. Though previous instruction was given in learning the basics of how to bar code products, conditions now necessitate that employees learn high-level skills such as running reports and issuing materials for production control functions. None of the material covered will revisit or duplicate instruction previously given on this system.

NARRATIVE: (continued)

Commercial Skills

Blueprint Reading – The existing skill level of production staff to read and interpret sophisticated geometric tolerance levels is poor, which has resulted in many costly errors at the worksite and inadequate service to Morgan Advanced Ceramics' customers. This training has also never been delivered before and is critical to ensure improved customer service.

Business Skills

Customer Service – This first-ever formalized training to those who interact with customers is needed to improve relationships with the firm's customer base, to equip staff with the knowledge to provide correct cost quotes, and to provide much more detail on how to improve internal sales processes.

Product Knowledge – A corollary to learning advanced customer service techniques is a first-time course given to ensure that all employees understand the technical aspects of the firm's product capabilities and how to join that knowledge to the particular needs of customers from innumerable fields of endeavor.

Manufacturing Skills – This first-time instruction will enable select production workers to set up newly installed CNC equipment, program, maintain and troubleshoot these key machines. Like the other training provided under this training plan, this instruction is critical to employee upward mobility.

Continuous Improvement – Critical to increasing efficiency on production line and helping Morgan Advanced Ceramics remain competitive, this curriculum will build on previously delivered, introductory training in problem solving, decision making, statistical process control, and measurement techniques. The newly proposed training program will make use of this foundation by teaching employees how to work in teams, maximize communication techniques, understand new production processes, identify and implement best practices techniques, and help them adjust to the new company undertaking of new and more efficient manufacturing techniques. Eight hours of classroom instruction on an overview of the ISO 9000 standard will also be given.

Supplemental Nature of Training

Morgan Advanced Ceramics has certified that this proposed training is new instruction and supplemental to training that the company has provided in the past. The company has historically provided on-the-job training in general safety skills, company orientation, basic manufacturing processes, and introductory computer skills, none of which will be duplicated under this proposed Agreement. In addition, ETP funding will allow Morgan Advanced Ceramics to implement a new, well-planned, organized, company-wide, and structured, classroom-based training program.

Resources available for training are limited, with the firm's current training budget only allowing for initial skills training for new hires, which would prevent Morgan Advanced Ceramics from maintaining its competitive stance in the marketplace. The prospective Contractor states that it has never had an all-inclusive, structured training program, and that this potential Agreement will become the basis of new skills and knowledge on which future company improvements can be made and upon which further training can be built. In addition, a managerial assessment of trainee needs was conducted before drawing up this training plan and is supported by both management and the participating union. Without the proposed ETP training plan, the employer will lose its edge in the industry, resulting in the potential loss of future work contracts, and the resulting prospective loss of many jobs.

NARRATIVE: (continued)

Supplemental Nature of Training (continued)

In the years following the completion of the ETP Agreement, the company intends to continue to provide a significant amount of training, which will build on the foundation of this project and sustain and reinforce the skills gained with ETP support. The estimated training budget for the two years following ETP funding approximates \$75,000 per year.

All training and administrative duties will be the sole responsibility of the Contractor.

In-Kind Contribution

The prospective Contractor will defray wages for trainees, estimated at \$235,000, during the complete term of training.

COMMENTS:

Senior Policy Staff

The company has certified in writing that no senior-level managers or executive staff who set company policy are included in the ETP training plan.

Frontline Workers

Under this project 203 trainees are frontline workers as defined under Title 22, California Code of Regulations, Section 4400(ee). These persons directly produce or deliver goods and services, while the only managers participating in this Agreement number five individuals, or 2.4 percent of the training populace.

PROPOSED ACTION:

Staff recommends that the Panel approve this One-Step Agreement if funds are available and the project meets Panel priorities based on Morgan Advanced Ceramics' stated need to provide employees with skills to enhance its ability to remain competitive and maintain good relationships with its customers. Implementation of this proposed training plan will enable this employer to remain viable in the California economy.

TRAINING PLAN:

Grp/Trainee Type	Types of Training	No. Retain	No. Class/Lab Videocnf. Hrs	No. CBT Hrs	No. SOST Hrs.	Cost per Trainee	Hourly Wage after 90 days
Groups 1-5	Menu: Continuous Improvement Computer Skills Commercial Skills Manufacturing Skill Business Skills Management Skills	208	40-88	0	0	\$520- \$1,144	\$12.16- \$58.82
					<u>Range of Hourly Wages</u>		
					\$12.16 -\$58.82		
					<u>Prevalent Hourly Wage</u>		
					\$15.00		
					<u>Average Cost per Trainee</u>		
					\$668		
<u>Health Benefit used to meet ETP minimum wage:</u>					<u>Turnover Rate</u>		<u>% of Mgrs & Supervisors to be trained:</u>
No health benefits will be used to augment trainee wages.					12%		2.4%

Morgan Advanced Ceramics Training Menu Curriculum

Hours:

Class/Lab
40-88

Trainees will receive any of the following:

MANAGEMENT SKILLS – *This course in management and leadership skills will be given to the five managerial trainees and several individuals slated for promotion to best assist frontline workers to work effectively in teams and to learn coaching techniques peculiar to that arrangement. Other new methods of leadership will include facilitating new changes at the workplace and helping frontline workers to assume and implement new goals stemming from cultural and technological changes.*

- **Leadership/Management Skills**
 - Performance Management
 - Habits of Highly Effective People
 - Planning Performance and Development Goals in a Team Setting
 - Situational Leadership
 - Facilitating Change in a Team Setting
 - Employee Development as Team Members
 - Coaching Techniques
 - Team Building

- **BUSINESS SKILLS**
- **Communication Skills**
 - Effective Listening
 - Verbal Skills
 - Improving Business Writing Skills
 - Communication Styles and Impact on Work Groups
 - Feedback Techniques
 - Public Speaking
 - Presentation Skills

- **Handling Multiple Projects**
 - Scope Identification
 - Project Definition
 - Plan Building
 - Establishing Priorities

CONTINUOUS IMPROVEMENT

- Overview of ISO 9000-2000 (Not to exceed 8 hours)
- Total Quality Management
 - Analyzing Processes
 - Process and Procedure Documentation
 - Flow Diagrams, Data Collection and Analysis
 - Process Improvement
 - Critical Success Factors
 - Team Training
 - Strategic Planning
 - Managing Priorities
 - Problem Solving and Decision Making
- Best Practices
- Cycle Time Reduction
 - Set-up time reduction
- Lean Manufacturing Principles
 - Manufacturing small lot sizes
 - Quicker methods to convert raw material to finished products
 - Methods to improve workflow, quality and communication
- Push/Pull Simulators

COMPUTER SKILLS

- CAD (Computer Assisted Drafting) Training
 - Drawing using CAD software
 - Dimensioning
 - New Developments
- Syteline Inventory
 - Advanced Bar Coding
 - Running Reports
 - Issuing Material to Jobs

MANUFACTURING SKILLS

- Computerized Numerical Controls (CNC) Set Up
- CNC Programming
- CNC Maintenance

COMMERCIAL SKILLS

- Blueprint Comprehension
 - Reading Blueprint Drawings
 - Understanding Blueprint Symbols
 - Reading Dimensions
 - Addressing Customer Needs

BUSINESS SKILLS

- Customer Service
 - Improved Customer Relations
 - Providing Quotes Effectively
 - Product Overview
 - Creating Positive Outcomes with Difficult Customers
 - Internal Sales
- Product Knowledge
 - Understanding End Users of Products
 - What's Critical About the Parts